

Figure 1

gacaaaactcacacatgtccaccttgtccagctccggaactcctggggggaccgtcagtc 60  
D K T H T C P P C P A P E L L G G P S V 20  
221 226 231 236

ttcctcttcccccaaaaccaaggacaccctcatgatctcccgaccctgaggtcaca 120  
F L F P P K P K D T L M I S R T P E V T 40  
241 246 251 256

tgcggtgggtggacgtgagccacgaagaccctgaggtcaagttcaactgggtacgtggac 180  
C V V V D V S H E D P E V K F N W Y V D 60  
261 266 271 276

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G V E V H N A K T K P R E E Q Y N S T Y 80  
281 286 291 296

cgtgtgggtcagcgtcctcaccgtcctgcaccaggactgggtgaatggcaaggagtacaag 300  
R V V S V L T V L H Q D W L N G K E Y K 100  
301 306 311 316

tgcaaggtctccaacaaagccctcccagcccccatcgagaaaaccatctccaaagccaaa 360  
C K V S N K A L P A P I E K T I S K A K 120  
321 326 331 336

gggcagccccgagaaccacaggtgtacaccctgcccccatcccgggatgagctgaccaag 420  
G Q P R E P Q V Y T L P P S R D E L T K 140  
341 346 351 356

aaccaggtcagcctgacctgcctgggtcaaaggcttctatcccagcgacatcgccgtggag 480  
N Q V S L T C L V K G F Y P S D I A V E 160  
361 366 371 376

tgggagagcaatgggcagccggagaacaactacaagaccacgcctcccggtgctggactcc 540  
W E S N G Q P E N N Y K T T P P V L D S 180  
381 386 391 396

gacggctccttcttctctacagcaagctcaccgtggacaagagcaggtggcagcagggg 600  
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401 406 411 416

aacgtcttctcatgctccgtgatgcatgaggctctgcacaaccactacacgcagaagagc 660  
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**Figure 2**

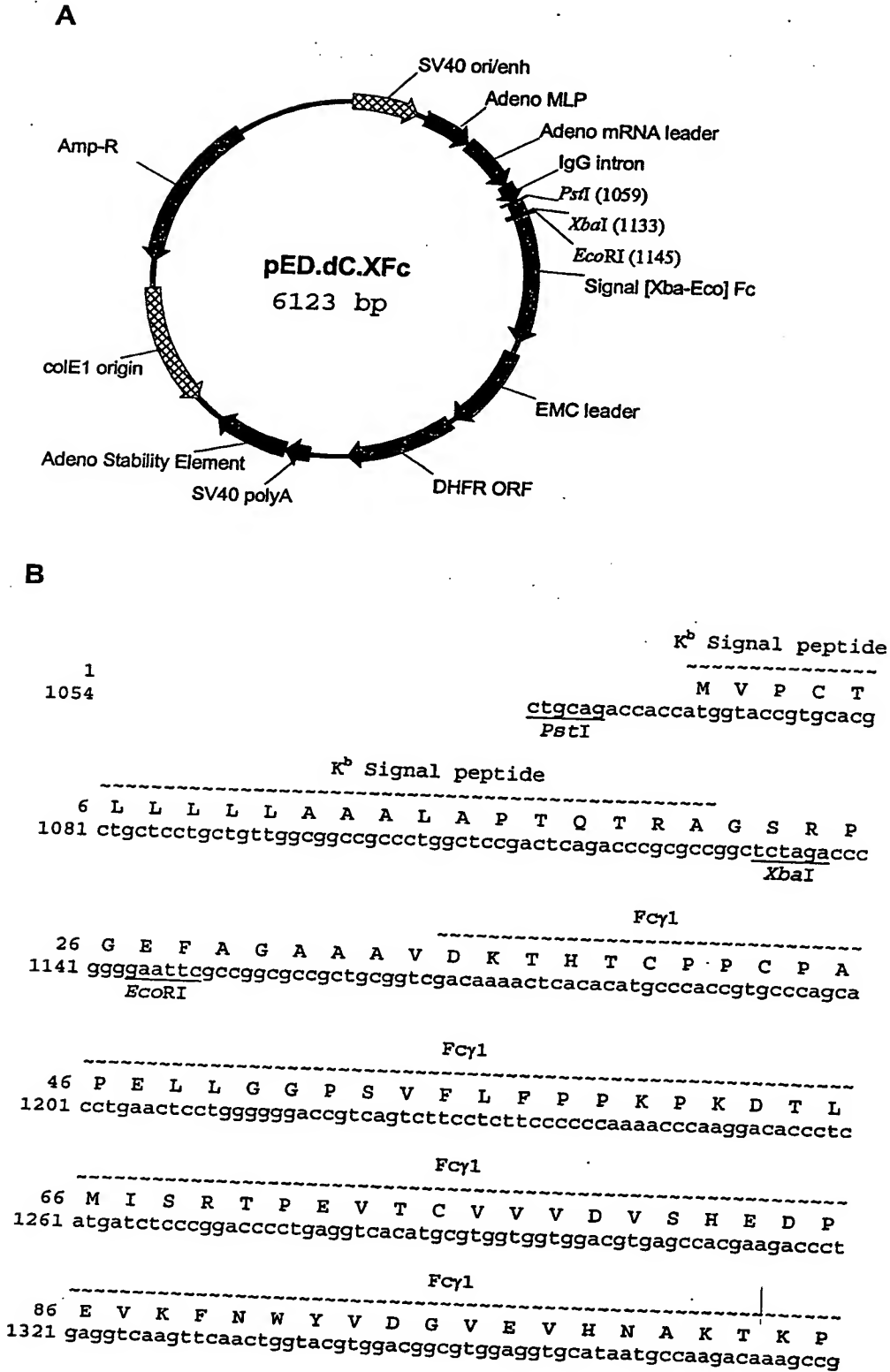
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catgtggata	aagccgtcag	tggccttcgc	agcctcacca	ctctgcttcg	ggctctggga	420
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**B SEQ ID NO:4**

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SLNENITVPD	TKVNFYAWKR	MEVGQQAVEV	WQGLALLSEA	VLRGQALLVN	SSQPWEPLQL	120
HVDKAVSGLR	SLTTLLRALG	AQKEAISPPD	AASAAPLRTI	TADTFRKLFR	VYSNFLRGKL	180
KLYTGEACRT	GDR					193

**Figure 3**



Applicant: Blumberg et al.  
Title: CENTRAL AIRWAY FOR SYSTEMIC  
DELIVERY OF THERAPEUTICS  
Express Mail Label No. EV 292547396 US  
Date of Deposit: July 17, 2003  
Docket No. S01383.70011.US

Fcyl

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106 R E E Q Y N S T Y R V V S V L T V L H Q  
1381 cgggaggagcagtacaacagcacgtaccgtgtggtcagcgtcctcaccgtcctgcaccag

Fcyl

-----  
126 D W L N G K E Y K C K V S N K A L P A P  
1441 gactggctgaatggcaaggagtacaagtgaaggtctccaacaaagccctcccagcccc

Fcyl

-----  
146 I E K T I S K A K G Q P R E P Q V Y T L  
1501 atcgagaaaaccatctccaaagccaaagggcagccccgagaaccacaggtgtacaccctg

Fcyl

-----  
166 P P S R D E L T K N Q V S L T C L V K G  
1561 cccccatcccgggatgagctgaccaagaaccaggtcagcctgacctgcctgggtcaaaggc

Fcyl

-----  
186 F Y P S D I A V E W E S N G Q P E N N Y  
1621 ttctatcccagcgacatcgccgtggagtgggagagcaatgggcagccggagaacaactac

Fcyl

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Fcyl

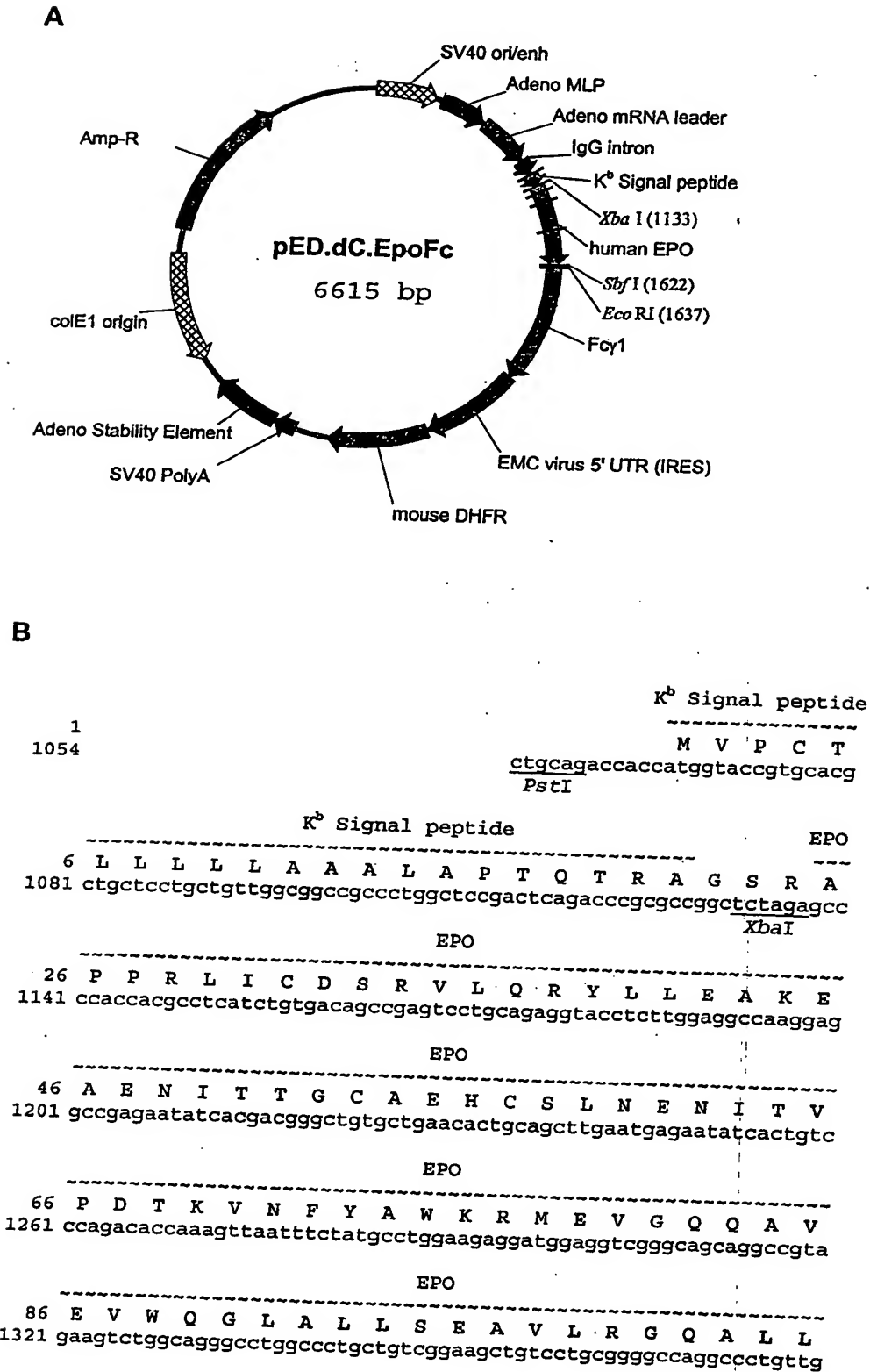
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Fcyl

-----  
246 L H N H Y T Q K S L S L S P G K  
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(SEQ ID NO:6)  
(SEQ ID NO:5)

**Figure 4**



EPO

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EPO

126 L R S L T T L L R A L G A Q K E A I S P  
1441 cttcgcagcctcaccactctgcttcgggctctgggagccagaaggaagccatctccct

EPO

146 P D A A S A A P L R T I T A D T F R K L  
1501 ccagatgcggcctcagctgctccactccgaacaatcactgctgacactttccgcaaactc

EPO

166 F R V Y S N F L R G K L K L Y T G E A C  
1561 ttccgagtctactccaatttctccggggaaagctgaagctgtacacaggggagggcctgc  
SbfI

EPO

Fcyl

186 R T G D R E F A G A A A V D K T H T C P  
1621 aggacaggggacagagaattccgcccgcgcgtgcggctcgacaaaactcacacatgccca  
EcoRI

Fcyl

206 P C P A P E L L G G P S V F L F P P K P  
1681 ccgtgccagcacctgaactcctgggggacgcgtcagtcttctcttcccccaaaacc

Fcyl

226 K D T L M I S R T P E V T C V V V D V S  
1741 aaggacaccctcatgatctcccgaccctgaggtcacatgcgtggtggtggacgtgagc

Fcyl

246 H E D P E V K F N W Y V D G V E V H N A  
1801 cacgaagaccctgaggtcaagtccaactggtacgtggacggcgtggaggtgcataatgcc

Fcyl

266 K T K P R E E Q Y N S T Y R V V S V L T  
1861 aagacaaagccgcgggaggagcagtacaacagcacgtaccgtgtggtcagcgtcctcacc

Fcyl

286 V L H Q D W L N G K E Y K C K V S N K A  
1921 gtcctgcaccaggactggctgaatggcaaggagtacaagtgaaggctccaacaaagcc

Fcyl

306 L P A P I E K T I S K A K G Q P R E P Q  
1981 ctcccagccccatcgagaaaaccatctccaaagccaaagggcagccccgagaaccacag

Fcyl

326 V Y T L P P S R D E L T K N Q V S L T C  
2041 gtgtacaccctgcccccatcccggtatgagctgaccaagaaccaggtcagcctgacctgc

Fcyl

346 L V K G F Y P S D I A V E W E S N G Q P  
2101 ctggtcaaaggcttctatcccagcgacatcgccgtggagtgggagagcaatgggcagccg

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Express Mail Label No. EV 292547396 US  
Date of Deposit: July 17, 2003  
Docket No. S01383.70011.US

Fcγ1

-----  
366 E N N Y K T T P P V L D S D G S F F L Y  
2161 gagaacaactacaagaccacgcctcccgtgttggaactccgacggctccttcttctctac

Fcγ1

-----  
386 S K L T V D K S R W Q Q G N V F S C S V  
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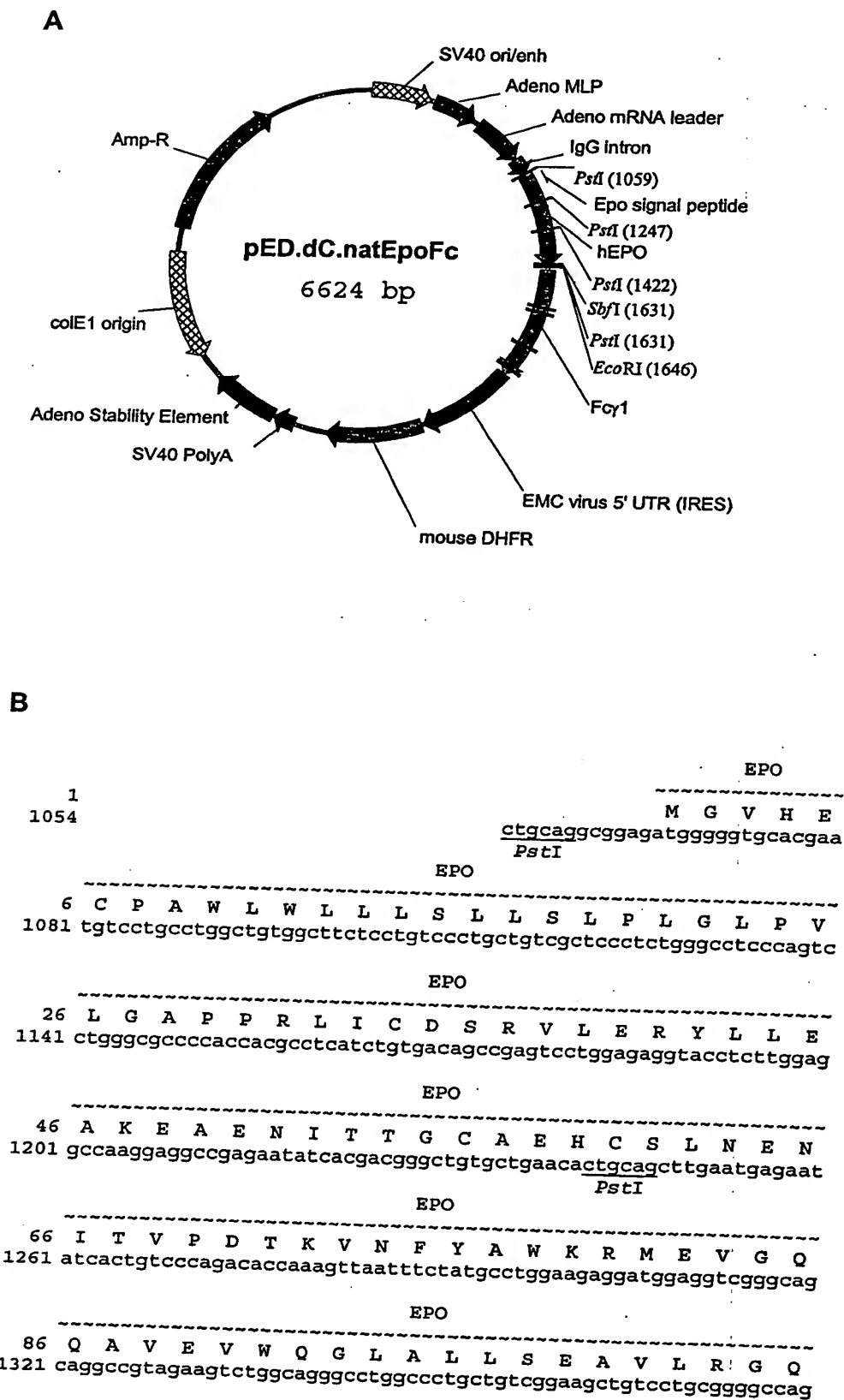
Fcγ1

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406 M H E A L H N H Y T Q K S L S L S P G K (SEQ ID NO:8)  
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2341 tga

(SEQ ID NO:7)

**Figure 5**



EPO

106 A L L V N S S Q P W E P L Q L H V D K A  
1381 gccctgttggtcaactcttcccagccgtgggagccctgcagctgcatgtggataaagcc  
PstI

EPO

126 V S G L R S L T T L L R A L G A Q K E A  
1441 gtcagtggccttcgcagcctcaccactctgcttcgggctctgggagcccagaaggaagcc

EPO

146 I S P P D A A S A A P L R T I T A D T F  
1501 atctcccctccagatgcggcctcagctgctccactccgaacaatcactgctgacactttc

EPO

166 R K L F R V Y S N F L R G K L K L Y T G  
1561 cgcaaactcttccgagtctactccaatttctccggggaaagctgaagctgtacacaggg

EPO

Fcy1

186 E A C R T G D R E F A G A A A V D K T H  
1621 gaggcctgcaggacaggggacagagaatttcgccggcgccgctgcggtcgacaaaactcac  
SbfI/PstI EcoRI

Fcy1

206 T C P P C P A P E L L G G P S V F L F P  
1681 acatgcccaccgtgcccagcacctgaactcctggggggaccgtcagttctctcttcccc

Fcy1

226 P K P K D T L M I S R T P E V T C V V V  
1741 ccaaaacccaaggacaccctcatgatctccggaccctgaggtcacatgcgtgggtggtg

Fcy1

246 D V S H E D P E V K F N W Y V D G V E V  
1801 gacgtgagccacgaagaccctgaggtcaagttcaactggtacgtggacggcgtggaggtg

Fcy1

266 H N A K T K P R E E Q Y N S T Y R V V S  
1861 cataatgccaagacaaagccgcgggaggagcagtacaacagcacgtaccgtgtggtcagc

Fcy1

286 V L T V L H Q D W L N G K E Y K C K V S  
1921 gtcctcaccgtctctgcaccaggactggctgaatggcaaggagtacaagtgaaggtctcc

Fcy1

306 N K A L P A P I E K T I S K A K G Q P R  
1981 aacaaagccctcccagccccatcgagaaaaccatctccaaagccaaagggcagccccga

Fcy1

326 E P Q V Y T L P P S R D E L T K N Q V S  
2041 gaaccacaggtgtacaccctgcccccatcccggtgagctgaccaagaaccaggtcagc

Fcyl

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346 L T C L V K G F Y P S D I A V E W E S N  
2101 ctgacctgcctgggtcaaaggcttctatcccagcgacatcgccgtggagtgggagagcaat

Fcyl

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366 G Q P E N N Y K T T P P V L D S D G S F  
2161 gggcagccggagaacaactacaagaccacgcctcccgtgttgactccgacggctccttc

Fcyl

-----  
386 F L Y S K L T V D K S R W Q Q G N V F S  
2221 ttctctacagcaagctcaccgtggacaagagcaggtggcagcaggggaacgtcttctca

Fcyl

-----  
406 C S V M H E A L H N H Y T Q K S L S L S  
2281 tgctccgtgatgcatgaggctctgcacaaccactacacgcagaagagcctctccctgtct

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2341 ccgggtaaatga

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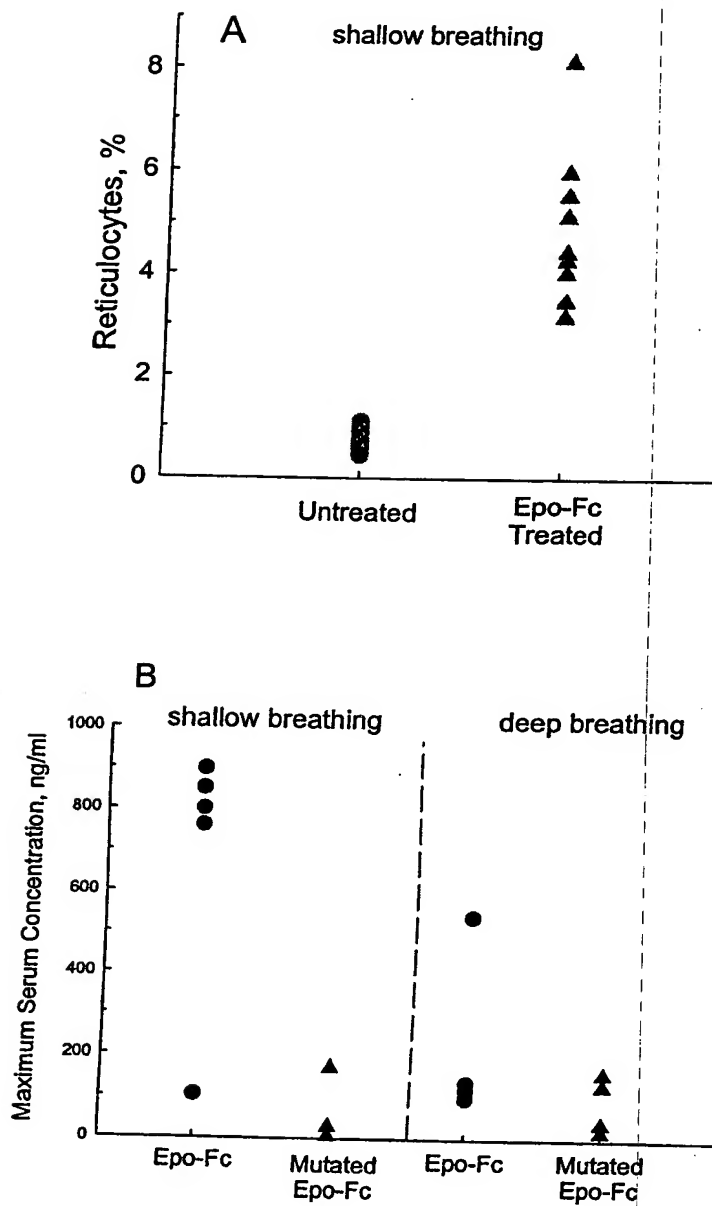


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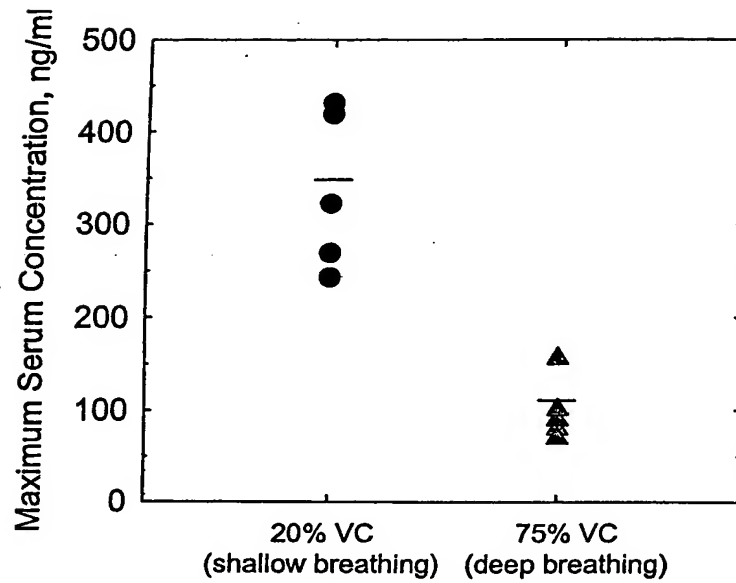


Figure 7

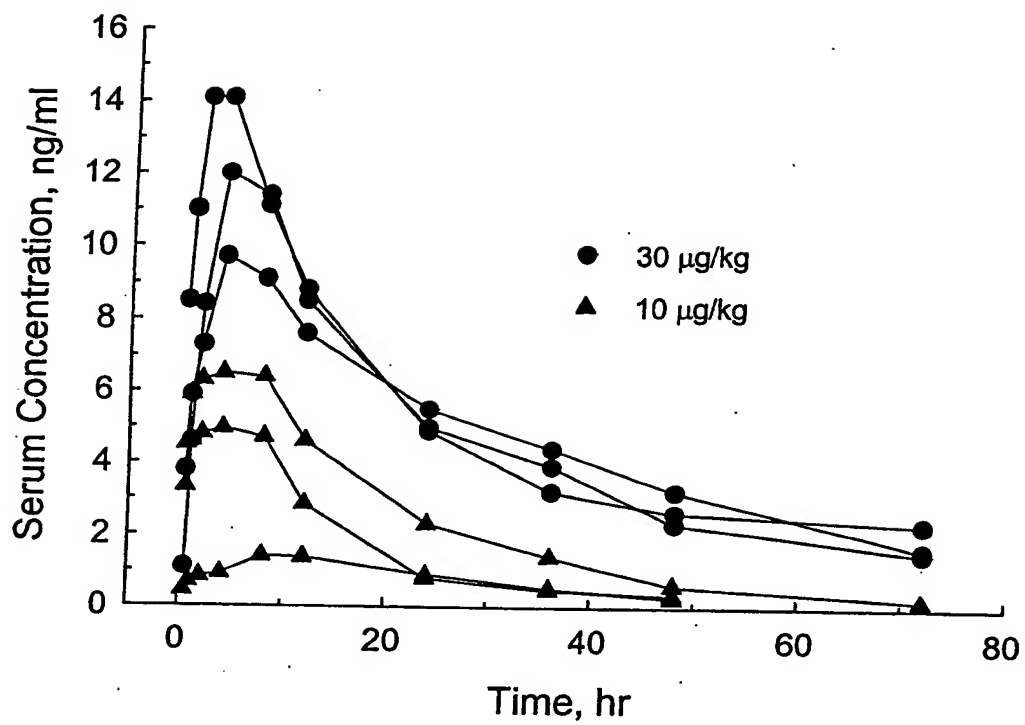


Figure 8

Figure 9

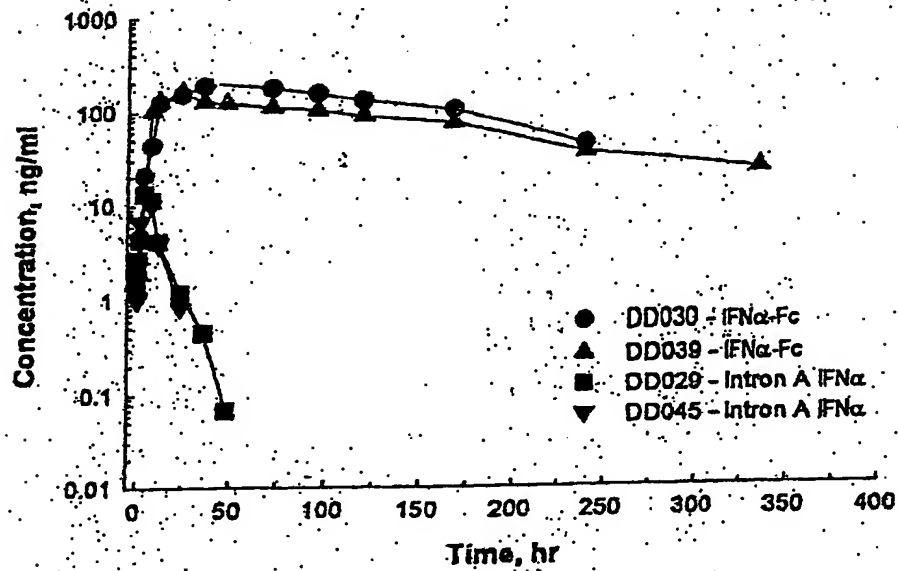


Figure 10

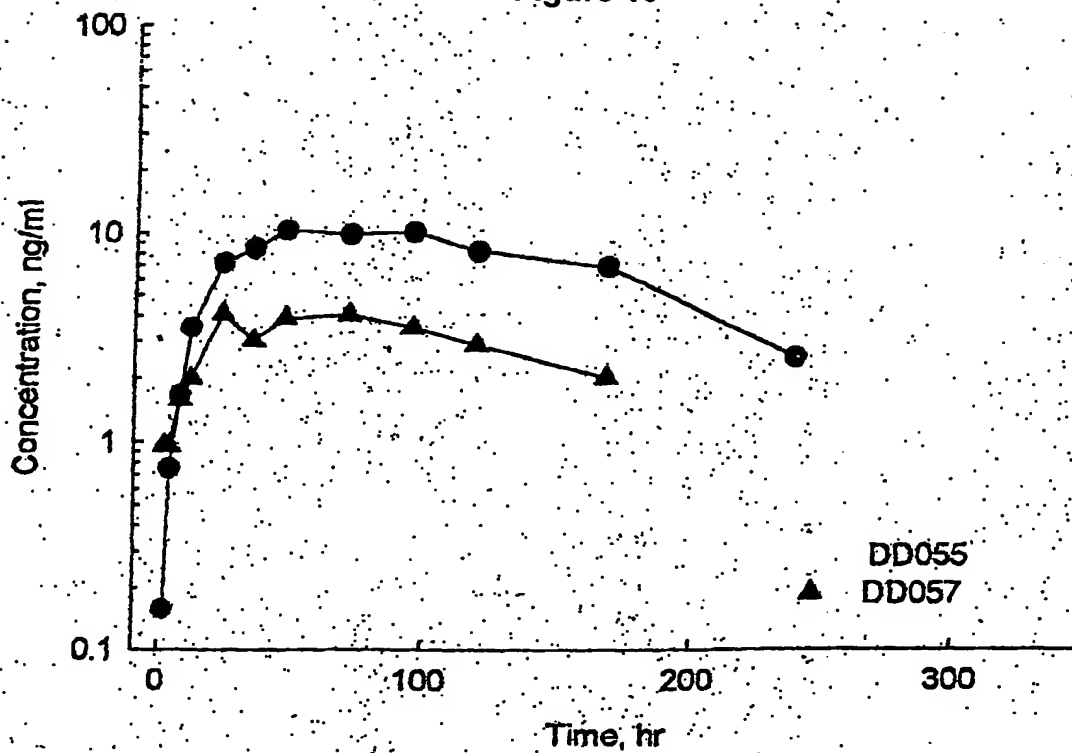
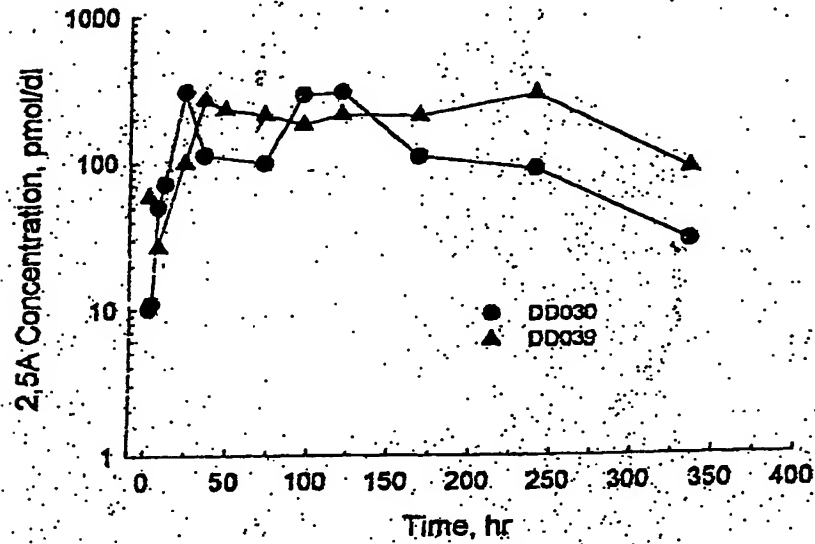


Figure 11

A

Oligoadenylate Synthetase (OAS) Activity



B

Neopterin concentration

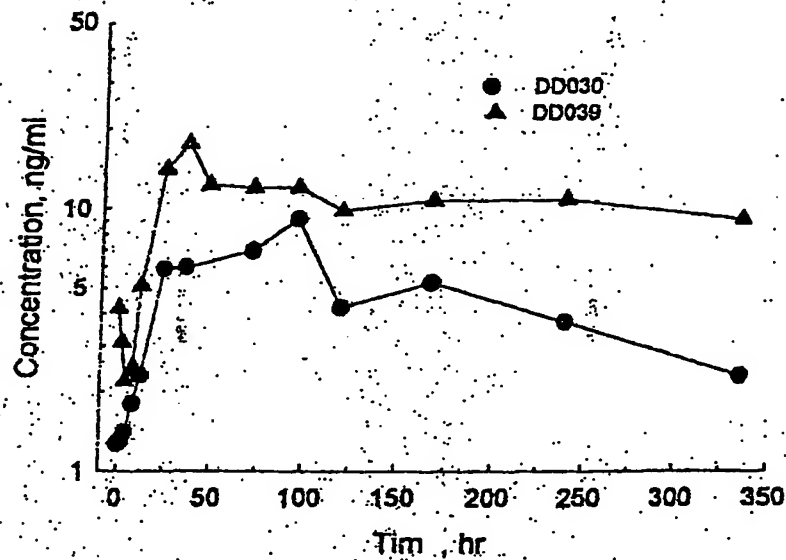


Figure 12

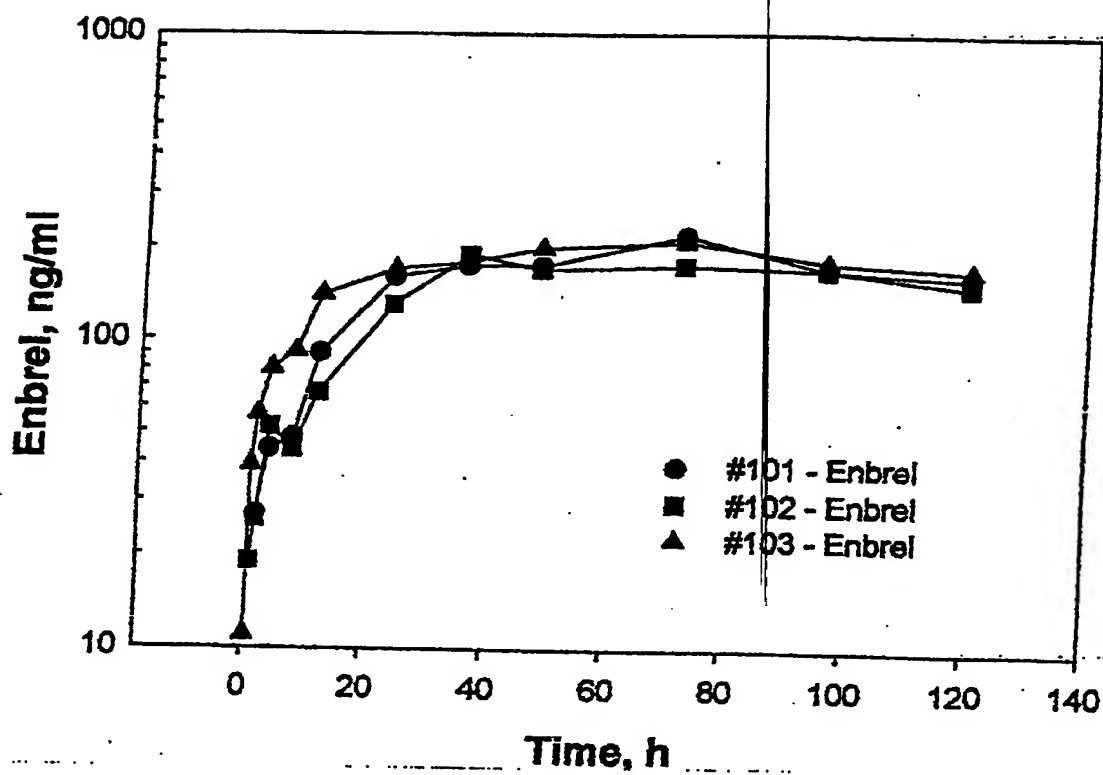


Figure 13

